

# Social Network Analysis

[John Scott](#)

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"This paper reports on the development of social network analysis, tracing its origins in classical sociology and its more recent formulation in social scientific and mathematical work. It is argued that the concept of social network provides a powerful model for social structure, and that a number of important formal methods of social network analysis can be discerned. Social network analysis has been used in studies of kinship structure, social mobility, science citations, contacts among members of deviant groups, corporate power, international trade exploitation, class structure, and many other areas. A review of the formal models proposed in graph theory, multidimensional scaling, and algebraic topology is followed by extended illustrations of social network analysis in the study of community structure and interlocking directorships."

Abell, P. 1969. 'Measurement in Sociology, II: Measurements, Structure, and Sociological Theory.' Sociology 3:397-411.

[Google Scholar](#) | [SAGE Journals](#)

---

Atkin, R.H. 1974. Mathematical Structure in Human Affairs. London: Heinemann.

[Google Scholar](#)

---

Atkin, R.H. 1981. Multidimensional Man. Harmondsworth: Penguin.

[Google Scholar](#)

---

Bachrach, S. (ed.) 1986. Perspectives in Organisational Sociology.

[Google Scholar](#)

---

Banton, M. (ed.) 1966. The Social Anthropology of Complex Societies. London: Tavistock.

[Google Scholar](#)

---

Barnes, J. A. , 1954, 'Class and Committees in a Norwegian Island Parish.' Human Relations 7:39-58.

[Google Scholar](#) | [SAGE Journals](#) | [ISI](#)

---

Barnes, J. A. , 1969, 'Graph Theory and Social Networks.' Sociology 3:215-232.

[Google Scholar](#)

---

Barnes, J.A. 1972. Social Networks. Module in Anthropology, No.26. Reading, Mass: Addison Wesley.

[Google Scholar](#)

---

Bavelas, A. , 1948. 'A Mathematical Model for Group Structure.' Applied Anthropology 7:16-30.  
[Google Scholar](#)

---

Bearden, J. , Atwood, W. , Freitag, P. , Hendricks, C. , Mintz, B. , and Schwartz, M. , 1975. 'The Nature and Extent of Bank Centrality in Corporate Networks.' Paper to the American Sociological Association.  
[Google Scholar](#)

---

Bell, C. and Newby, H. , (eds.) 1971, Community Studies. London: George Allen and Unwin.  
[Google Scholar](#)

---

Berkowitz, S.D. , 1982. An Introduction to Structural Analysis. Toronto: Butterworth.  
[Google Scholar](#)

---

Berkowitz, S.D. and Wellman, B. , (eds.) 1986. Structural Sociology. Cambridge University Press.  
[Google Scholar](#)

---

Blau, P.M. , 1982. 'Structural Sociology and Network Analysis.' Pp. 273-279 in Marsden and Lin (1982).  
[Google Scholar](#)

---

Bonacich, P. , 1986. 'Power and Centrality: A Family of Measures.' American Sociological Review, forthcoming.  
[Google Scholar](#) | [Medline](#) | [ISI](#)

---

Boorman, S.A. and White, H.C. 1976. 'Social Structure from Multiple Networks, II: Role Structure.' American Journal of Sociology 81:1384-1446.  
[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Bott, E. , 1957. Family and Social Network. London: Tavistock.  
[Google Scholar](#)

---

Brown, G. , (ed.) 1975. The Red Paper on Scotland. Edinburgh: EUSPB.  
[Google Scholar](#)

---

Bulmer, M. , 1986. Neighbours: The Work of Philip Abrams. Cambridge University Press.  
[Google Scholar](#)

---

Burt, R. , 1982. Toward a Structural Theory of Action. New York: Academic Press.

[Google Scholar](#)

---

Cartwright, D. , and Zander, A. , (eds.) 1954. Group Dynamics. London: Tavistock.

[Google Scholar](#)

---

Coleman, J.S. , 1964. Introduction to Mathematical Sociology. New York: Free Press.

[Google Scholar](#)

---

Coxon, A.P.M. , 1982. The User's Guide to Multidimensional Scaling. London: Heinemann.

[Google Scholar](#)

---

Craven, P. , and Wellman, B. , 1973. 'The Network City.' Sociological Inquiry 43:57-88.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Davies, P.M. , and Coxon, A.P.M. , 1982, Key Texts in Multidimensional Scaling. London: Heinemann.

[Google Scholar](#)

---

Di Donato, D. , Glasberg, D.S. , Mintz, B. , and Schwartz, M. , 1986. 'Theories of Corporate Interlocks: A Social History.' In Bachrach, S. (ed.) 1986.

[Google Scholar](#)

---

Doreian, P. , 1970. Mathematics and the Study of Social Relations. London: Weidenfeld and Nicolson.

[Google Scholar](#)

---

Doreian, P. , 1980. 'On the Evolution of Group and Network Structure.' Social Networks 2:235-252.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Doreian, P. 1981. 'Polyhedral Dynamics and Conflict Mobilisation in Social Networks'. Social Network 3:107-116.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Doreian, P. , 1982. 'Levelling Coalitions as Network Phenomena.' Social Networks 4:27-45.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Duck, S. and Perlman, D. , (eds.) 1985. Personal Relations. London: Sage.

[Google Scholar](#)

---

Earl, C.F. , and Johnson, J.H. , 1981. 'Graph Theory and Q-Analysis.' Environment and Planning, B:

Planning and Design. 8:367-391.

[Google Scholar](#) | [SAGE Journals](#)

---

Everitt, B. , 1974. Cluster Analysis. London: Heinemann.

[Google Scholar](#)

---

Festinger, L. , 1949. 'The Analysis of Sociograms Using Matrix Algebra.' Human Relations 2:153-158.

[Google Scholar](#) | [SAGE Journals](#) | [ISI](#)

---

Fortes, M. , 1949. The Web of Kinship Among the Tallensi. Oxford University Press.

[Google Scholar](#)

---

Frankenberg, R.J. 1966. Communities in Britain. Harmondsworth: Penguin.

[Google Scholar](#)

---

Freidkin, N.E. 1981. 'The Development of Structure in Random Networks.' Social Networks 3:41-52.

[Google Scholar](#) | [ISI](#)

---

Freeman, L.C. , 1978, 'Centrality in Social Networks.' Social Networks 1:215-241.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Granovetter, M.S. , 1973, 'The Strength of Weak Ties.' American Journal of Sociology 78:1360-1380.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Hage, P. and Harris, F. 1983. Structural Models in Anthropology. Cambridge University Press.

[Google Scholar](#)

---

Harary, F. , Norman, R.Z. and Cartwright, D. , 1965. Structural Models. New York: Wiley.

[Google Scholar](#)

---

Helmets, H.M. , Mokken, R.J. , Plijter, R. C. , and Stokman, F.N. , 1975, Graven Naar Macht. Amsterdam: Van Gennep.

[Google Scholar](#)

---

Johnson, J.H. , 1982, 'q-Transmission in Simplicial Complexes.' International Journal of Man-Machine-Studies 16:351-377.

[Google Scholar](#) | [Crossref](#)

---

Johnson, J.H. , 1983, 'q-Analysis: A Theory of Stars.' Environment and Planning, B: Planning and Design 10:457-469.

[Google Scholar](#) | [SAGE Journals](#)

---

Klov Dahl, A. , 1985. 'Social Networks and the Spread of Infectious Diseases: The AIDS example,' Social Science and Medicine 21:1203-1216.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Levine, J.H. , 1972. 'Spheres of Influence.' American Sociological Review 37:14-27.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Levine, J.H. , 1984, Levine's Atlas of Corporate Interlocks. Hanover, New Hampshire: Worldnet.

[Google Scholar](#)

---

Mariolis, P. , 1975. 'Interlocking Directorates and Control of Corporations.' Social Science Quarterly 56:425-439.

[Google Scholar](#) | [ISI](#)

---

Marsden, P.V. and Lin, N. (eds.) 1982. Social Structure and Network Analysis. Beverley Hills: Sage.

[Google Scholar](#)

---

Mintz, B. , and Schwartz, M. , 1985. The Power Structure of American Business. University of Chicago Press.

[Google Scholar](#)

---

Mitchell, J.C. , (ed.) 1969. Social Networks in Urban Situations. Manchester University Press.

[Google Scholar](#)

---

Mitchell, J.C. , 1974. Social Networks. Annual Review of Anthropology 3:279-299.

[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Mitchell, J.C. 1985. 'Fortran Programs for Network Analysis.' Connections 8 (2-3):175.

[Google Scholar](#)

---

Mizruchi, M.S. 1982. The American Corporate Network, 1900-74. London: Sage.

[Google Scholar](#)

---

Moreno, J.L. 1953. Who Shall Survive? New York: Beacon House. (An earlier version published in 1934).

[Google Scholar](#)

---

Mullins, N. , 1973. Theory and Theory Groups in Contemporary American Sociology. Harper and Row.

[Google Scholar](#)

---

Nadel, S.F. , 1962. Toward A Theory of Social Structure. London: Cohen and West.

[Google Scholar](#)

---

Simmel, G. , 1908. Soziologie. Berlin: Duncker and Humblot, 1968.

[Google Scholar](#)

---

Scott, J.P. , 1975. 'The Mathematical Analysis of Interlocking Directorships: A Report.' Quantitative Sociology Newsletter 15:38-46.

[Google Scholar](#)

---

Scott, J.P. , 1985. Corporations, Classes, and Capitalism, Second Edition. London: Hutchinson.

[Google Scholar](#)

---

Scott, J.P. , 1986. Capitalist Property and Financial Power. Brighton: Wheatsheaf.

[Google Scholar](#)

---

Scott, J.P. and Griff, C. , 1984. Directors of Industry. Cambridge: Polity Press.

[Google Scholar](#)

---

Scott, J.P. , and Hughes, M.D. , 1975. 'Finance Capital and the Scottish Upper Class.' In G. Brown , (ed.) 1975.

[Google Scholar](#)

---

Scott, J.P. , and Hughes, M.D. , 1976. 'Ownership and Control in a Satellite Economy: A Discussion from Scottish Data.' Sociology 10:21-41.

[Google Scholar](#) | [SAGE Journals](#)

---

Scott, J.P. , and Hughes, M.D. , 1980. The Anatomy of Scottish Capital. London: Croom Helm.

[Google Scholar](#)

---

Sonquist, J.A. , et al. , 1975. 'Interlocking Directorships in the Top US Corporations.' Insurgent Sociologist 5:196-229.

[Google Scholar](#)

---

Stacey, M. , 1969. 'The Myth of Community Studies.' British Journal of Sociology 20:143-147.  
[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Stanworth, P. and Giddens, A. , 1975, 'The Modern Corporate Economy.' Sociological Review 23:5-28.  
[Google Scholar](#) | [ISI](#)

---

Stokman, F.M. , Zeigler, R. , and Scott, J.P. , (eds.) 1985. Networks of Corporate Power. Cambridge: Polity Press.  
[Google Scholar](#)

---

Useem, M. , 1984. The Inner Circle. New York: Oxford University Press.  
[Google Scholar](#)

---

Wallman, S. , 1984. Eight London Households. London: Tavistock.  
[Google Scholar](#)

---

Wellman, B. , 1979. 'The Community Question: The Intimate Networks of East Yorkers.' American Journal of Sociology 84:1201-1231.  
[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Wellman, B. , 1981. Network Analysis. From Method and Metaphor to Theory and Substance. Working Paper Series 1B, Structural Analysis Program, University of Toronto.  
[Google Scholar](#)

---

Wellman, B. , 1985. 'Domestic Work, Paid Work, and Network.' In Duck and Perlman , (eds.), 1985.  
[Google Scholar](#)

---

White, H.C. , Boorman, S.A. and Breiger, R.L. , 1976. 'Social Structure From Multiple Networks, I: Blockmodels of Roles and Positions.' American Journal of Sociology 81:730-380.  
[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

Whitley, R. , 1973. 'Commonalities and Connections Among Directors of Large Financial Institutions.' Sociological Review 21:613-632.  
[Google Scholar](#) | [SAGE Journals](#) | [ISI](#)

---

Willmott, P. , 1986. Social Networks, Informal Care, and Public Policy. London: PSI.  
[Google Scholar](#)

---

Young, M. , and Willmott, P. , 1957. Family and Kinship in East London. London: Routledge and

Kegan Paul.  
[Google Scholar](#)